

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A connector for connecting a circuit board to a backplane, comprising:

a first differential pair and a second differential pair of transmit connection positions in a first direction;

a receive connection position; and

a ground shield positioned in the first direction between the first differential pair and second differential pair of transmit connection positions and the receive connection position, wherein the first differential pair and ~~[[or]]~~ second differential pair of transmit connection positions do not have an interposing adjacent ground shield ~~in a perpendicular direction~~.

2. (Currently Amended) A connector for connecting a circuit board to a backplane, comprising:

first differential pair and second differential pair of receive connection positions in a first direction;

a differential pair of transmit connection positions; and

a ground shield positioned in the first direction between the first and second differential pairs of receive connection positions and the differential pair of transmit connection positions, wherein the first and ~~[[or]]~~ second differential pairs of receive connection positions do not have an interposing adjacent ground shield in a second perpendicular direction perpendicular to the first direction.

3. (Currently Amended) A connector for connecting a circuit board to a backplane, comprising:

first, ~~[[and]]~~ second, third, and fourth transmit connection positions in a direction;

first and second receive connection positions; and

a ground shield positioned in the direction between the first, ~~[[and]]~~ second, third, and fourth transmit connection positions and the first and second receive

connection positions, wherein the first, ~~[[or]]~~ second, third, and fourth transmit connection positions do not have an interposing adjacent ground shield ~~in a perpendicular direction~~.

4. (Currently Amended) The connector of claim 3 wherein the first and second receive connection positions do not have an interposing ground shield ~~in the perpendicular direction~~.

5. (Cancelled)

6. (Currently Amended) The connector of claim ~~[[5]]~~ 3 wherein the first and second receive connection positions comprise differential receive pairs of connection positions.

7. (Previously Presented) The connector of claim 3 wherein the first and second transmit connection positions comprise single ended transmit connection positions.

8. (Previously Presented) The connector of claim 7 wherein the first and second receive connection positions comprise single ended receive connection positions.

9. (Previously Presented) A connector to a serial backplane comprising:  
a first plurality of receive connection elements on the connector for at least two serializer/deserializer modules, wherein two receive connection elements of the first plurality do not have a first interposing ground plane;  
a second plurality of transmit connection elements for the at least two serializer/deserializer modules, wherein the second plurality of transmit connection element is separated from the first plurality of the receive connection elements by a second interposing ground plane;  
a third plurality of transmit connection elements for other serializer/deserializer modules, the third plurality of transmit connection elements positioned adjacent to the second plurality of transmit connection elements, wherein the third plurality of transmit

connection elements is separated from the second plurality of transmit connection elements by a third interposing ground plane; and

a fourth plurality of receive connection elements for the other serializer/deserializer modules, the fourth plurality of receive connection elements positioned adjacent to the third plurality of transmit connection elements, wherein the fourth plurality is separated from the third plurality by a fourth interposing ground plane.

10. (Cancelled)

11. (Previously Presented) The connector of claim 9 wherein the receive connection elements comprise first pins and the transmit connection elements comprise second pins.

12. (Previously Presented) The connector of claim 9 wherein the receive connection elements comprise corresponding female structures of the first pins and the transmit connection elements comprise corresponding female structures of the second pins.

13. (Original) A method for connecting a plurality of serializer/deserializer modules to a backplane, comprising:

selecting a plurality of transmit/receive pairs from the plurality of serializer/deserializer modules, wherein each transmit/receive pair has an associated transmit connection structure and an associated receive connection structure in a connector; and

configuring a ground structure between the associated transmit connection structures and the associated receive connection structures, wherein there is no interposing ground structure between the associated receive connection structures.

14. (Original) The method of claim 13 wherein the plurality of serializer/deserializer modules are part of a programmable logic device.

15. (Original) The method of claim 13 wherein a serializer/deserializer module of the plurality of serializer/deserializer modules is part of a multi-giga bit transceiver (MGT) in a field programmable gate array (FPGA).

16. (Original) The method of claim 15 wherein the FPGA is part of a printed circuit board (PCB).

17. (Previously Presented) A connector for connecting a plurality of serializer/deserializer modules to a serial backplane, comprising:

means for locating a plurality of transmit/receive pairs from the plurality of serializer/deserializer modules, wherein each transmit/receive pair has means for connecting a transmit part of the transmit/receive pair to the backplane and means for connecting a receive part of the transmit/receive pair to the backplane; and

means for configuring a first ground shield between means for connecting each transmit part of the plurality of transmit/receive pairs to the backplane and means for connecting each receive part of the plurality of transmit/receive pairs to the backplane, wherein there is no second ground shield between each transmit part of the plurality of transmit/receive pairs.